

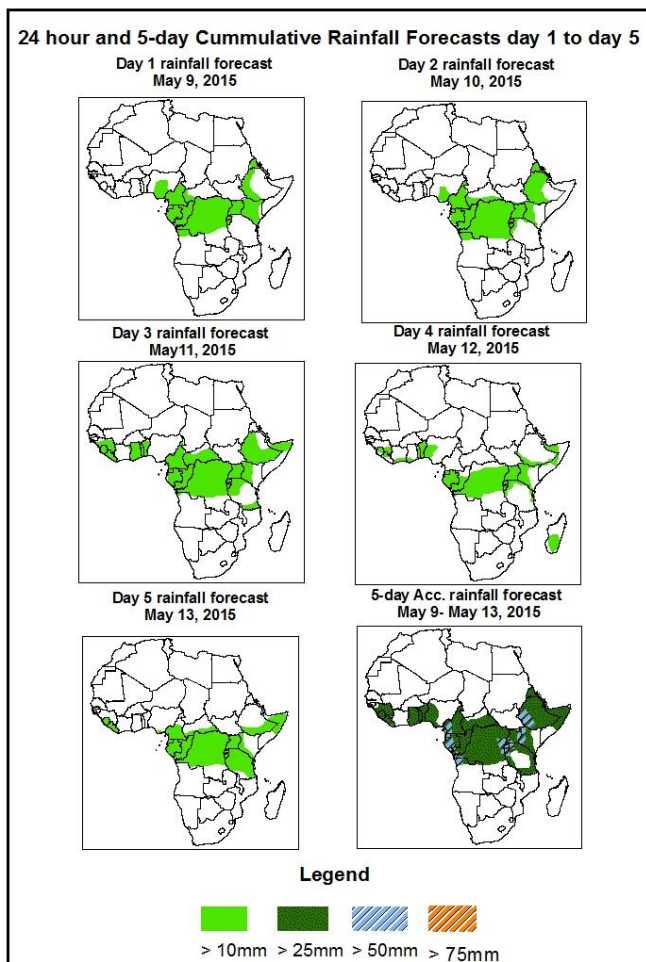


NCEP Contributions to the WMO Severe Weather Forecasting Demonstration Project (SWFDP) and to the African Monsoon Multidisciplinary Analysis (AMMA) Initiative

1. Rainfall Forecast: Valid 06Z of May 08 – 06Z of May 13, 2015. (Issued at 1600Z of May 08, 2015)

1.1. Twenty Four Hour Cumulative Rainfall Forecasts

The forecasts are expressed in terms of 75% probability of precipitation (POP) exceeded, based on the NCEP/GFS and the NCEP global ensemble forecasts system (GEFS) and expert assessment.

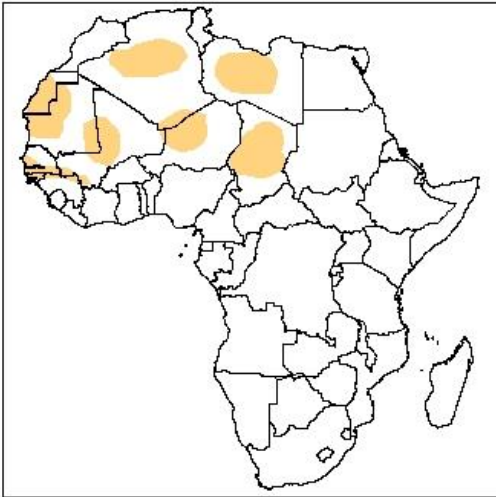


Summary

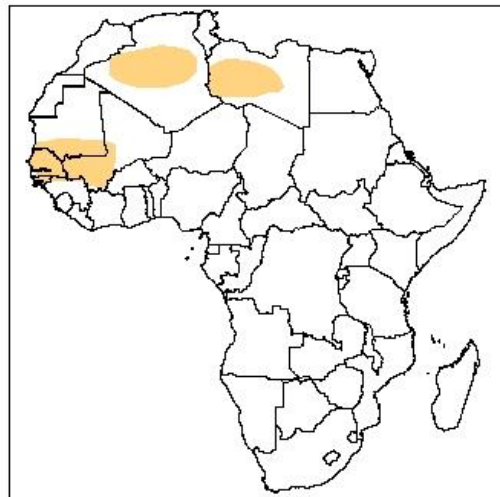
In the next five days, lower-level wind convergence over, Mali, Nigeria, Cameroon, CAR, South Sudan, Sudan, and Ethiopia is expected to enhance rainfall in these regions. There is an increased chance for heavy rainfall over Cameroon, Gabon, DRC, Tanzania, Uganda, Rwanda and Burundi, some parts of Kenya and Ethiopia

Atmospheric Dust Forecasts, day 1 to day 3,
Moderate Dust Concentration (MDC) and High Dust Concentration (HDC)

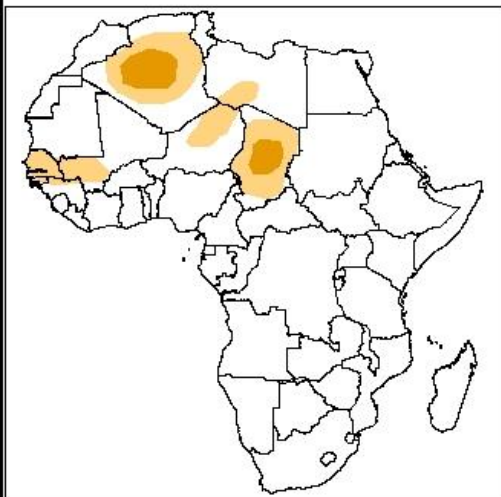
Day 1 Dust forecast
May 09, 2015



Day 2 Dust forecast
May 11, 2015



Day 3 Dust forecast
May 11, 2015



Highlights

There is an increased chance for moderate to high dust concentration over some parts of the Sahel, and North Africa countries with highest dust concentration expected over some parts of Algeria and Chad

Legend



MDC, Vis. < 5km



HDC, Vis. < 1km

1.2. Model Discussion: Valid from 06Z of May 09, 2015

The Azores high pressure system over the Northeast Atlantic Ocean is expected to intensify from central pressure value of 1025hpa in 24 hours to 1027hpa in 96hours, according to the GFS model.

The central pressure value of the Mascarene high pressure system over the Southwestern Indian Ocean is expected to intensify from central pressure value of 1032hpa in 24 hours to 1040hpa in 120hours, according to the GFS model.

The St Helena high pressure system over the Southeast Atlantic Ocean is expected to intensify from central pressure value of 1025hpa in 24 hours to 1027hpa in 120hours, according to the GFS model.

At 925Hpa level, easterly and north-easterly wind (>20kts) is expected to prevail across much of the African countries through 24 to 120 hours while the intensity of the wind tends to weaken across the North, central, Northeastern regions of Africa, while remaining moderately strong across Northwestern Africa towards end of the forecast period, according to the GFS model.

At 850Hpa level, North-Easterly wind over North and West African countries, Easterly and South Easterly wind over East, Central and southern African countries, is expected to prevail across in these Region, While wind convergence is expected to remain active in Mali, Nigeria, Cameroon, CAR, Sudan and Ethiopia during the forecast period, according to the GFS model.

At 700hpa level, a trough associated with mid-latitude frontal system is expected to prevail across North East African countries. Easterly wind over west, East and Central African countries, Southeasterly winds over Southern African countries, is expected to prevail across in these Regions, during the forecast period, according to the GFS model.

At 500Hpa level, a trough associated with mid-latitude frontal system is expected to prevail across North East African countries. Easterly wind is expected to prevail across West, Central and East African countries. While Westerly wind over Southern African countries, is expected to prevail across in these regions, during the forecast period, according to the GFS model.

In the next five days, lower-level wind convergence over, Mali, Nigeria, Cameroon, CAR, South Sudan, Sudan, and Ethiopia is expected to enhance rainfall in these regions. There is an increased chance for heavy rainfall over Cameroon, Gabon, DRC, Tanzania, Uganda, Rwanda and Burundi, some parts of Kenya and Ethiopia.

2.0. Previous and Current Day Weather Discussion over Africa

(May 07, 2015 – May 08, 2015)

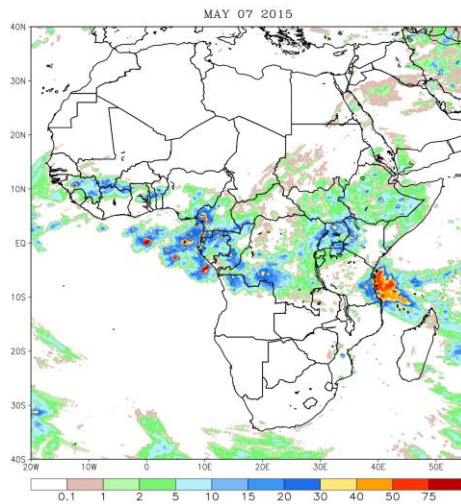
2.1. Weather assessment for the previous day (May 07, 2015)

Moderate to heavy rainfall were observed across Guinea, Mali, Ivory Coast, Benin, Togo, Nigeria, Congo Brazzaville, DRC, Cameroon, Uganda, South Sudan, Kenya Ethiopia and Coastal area of Tanzania

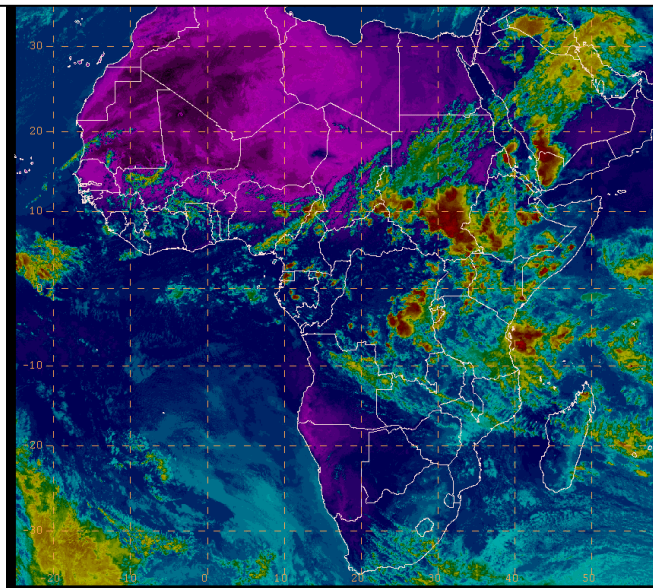
2.2. Weather assessment for the current day (May 08, 2015)

Intense convective deep clouds are observed over DRC, South Sudan, Sudan, Chad, Kenya and Ethiopia.

NOAA CPC FEWS-NET Rainfall Estimate (mm):
based on Satellite and Rain Gauge Data



IR Satellite Image (valid 1530Z of May 08, 2015)



Previous day rainfall condition over Africa (top Left) based on the NCEP CPCE/RFE and current day cloud cover (top right) based on IR Satellite image

Author: Admassu Kassa (Ethiopia National Meteorological Agency / CPC-African Desk); admassu.dewol@noaa.gov